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THE UNIVERSITY OF ALBERTA

NURSING KNOWLEDGE:
A SOCIOLOGY OF KNOWLEDGE ANALYSIS

by

© ELIZABETH I. HAGELL

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

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IN

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DEPARTMENT OF EDUCATIONAL FOUNDATIONS

EDMONTON, ALBERTA

FALL 1986

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"When a subject is highly controversial -- and any question about sex is that -- one cannot hope to tell the truth. One can only show how one came to hold whatever opinion one does hold. One can only give one's audience the chance of drawing their own conclusions as they observe the limitations, the prejudices and the idiosyncracies of the speaker."

Virginia Woolf

A Room of One's Own (1929)

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FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled NURSING KNOWLEDGE: A SOCIOLOGY OF KNOWLEDGE ANALYSIS submitted by ELIZABETH I. HAGELL in partial fulfilment of the requirements for the degree of MASTER OF EDUCATION.

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ABSTRACT

As nurses approach the twenty first century questions are being raised regarding the direction in which the profession is moving. The majority of leaders and educators in the field of nursing stress the importance of defining nursing as a science and of developing a scientific knowledge base. This has resulted in an emphasis on nursing research which, on the whole, has been based on quantifable research methods and statistical analyses. There are, however, an ever increasing number of researchers and theorists in the field of nursing who are examining the present trends in nursing and nursing research more critically. Using a variety of perspectives including feminism they are critiquing many of the basic assumptions about science and scientific knowledge.

This work utilizes sociology of knowledge and feminist theory to identify historical social and political factors which have lead nursing to its current reliance on the scientific model. Specifically this research examines the types of knowledge being developed in masters theses in nursing. It seeks to determine whether or not questions are being raised in graduate education in nursing regarding the role of science in nursing and the appropriateness of using quantitative research methods to understand nursing phenomemena. The results of this study indicate that science continues to be the paradigm of choice for graduate students in nursing. Even more importantly there is an overwhelming

acceptance of quantitative research methodologies. Discussion, let alone use, of alternative research methods is almost nonexistant.

The emphasis on science and quantitative research methods as the paradigm and method of choice for nursing has serious consequences for the development of nursing and nursing knowledge. The addition of alternative paradigms, such as feminism, to nursing curricula are possibilities which require further exploration.

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I. INTRODUCTION

> Contemporary nursing reflects scientific values by nature of its research, education and practice... Emphasis has been placed upon quantification methods to measure and validate hypothetical and theoretical statements. Indeed much attention has been given to scientific analysis. I believe that theories utilized from other disciplines have not sufficiently contributed to nursing's way of formulating its essential knowledge base. (Ray, 1981, p. 25)

The nature of the relationship between nursing and science is a question that has occupied a great deal of the time and energy expended by theorists and educators in the field of nursing during the past one hundred years. In recent years, this question has assumed an ever-increasing importance as health care -- including nursing -- has become highly technical, more costly and is able to preserve life regardless of extreme disease processes. In spite of these advances society is dissatisfied with the health care it receives. Consumers are demanding a more humane health care system and patient groups are organizing and demanding the right to participate in their own care.

Nursing has not been immune to these controversies. By utilizing social theory, specifically the sociology of knowledge, it may be possible to understand some of the reasons nursing is involved in particular issues and

discussions -- especially those involving the relationship of science and nursing. Before proceeding to the theoretical discussion, I would like to include a personal note in order to contextualize what follows.

My interest in this area of research originated a number of years ago while employed as a registered nurse. I became increasingly frustrated by the obstacles confronting me as I attempted to provide nursing care. It was soon apparent to me that there existed a definite lack of respect for the nurturing and supportive aspects of nursing. Other aspects were accorded more importance: charting procedures, setting up equipment for tests and examinations, and making rounds with doctors to discuss disease processes affecting individual patients. In time it was clear that I was not alone in my frustrations. Many of my colleagues left nursing as a profession altogether. Others became detached in their attitude to work. Some, including myself, sought alternative outlets within the profession. Thus I found myself exchanging bedside nursing for the new challenge of the Intensive Care Unit. But gradually the same frustrations I had experienced earlier arose again. Actual caring was given mere lip service while the emphasis continually fell on one of the "more important" tasks to do.

In retrospect it is clear that any attempt to understand these problems was lacking a perspective which acknowledged the gender bias existing in society and the implications this had and continues to have for nurses and

nursing. In many ways my experience was analogous to that which Betty Freidan calls the "problem without a name" in *The Feminine Mystique* (1963). In her seminal work she attempts to unravel the reasons for the unhappiness and frustration experienced by the average American housewife living in the 1960s. In attempting to understand what these women were feeling she found that there was no name for their experience. Similarly in my own experience I found that there was no language which fully described how I felt. This inability to name the experience is a symptom of much larger problems.

I began to realize that the problems experienced by myself and other nurses were related to much broader issues. I was spurred to investigate some of these larger questions. An early review of nursing literature, however, provided no answers. The literature emphasized the professional and scientific aspects of nursing -- making the subtle point that nurses should behave more like doctors. These views were not at all congruent with my own idea of what nursing should be. I was increasingly convinced that trying to be like doctors was one of nursing's greatest shortcomings. I turned to other disciplines for fresh theories and discovered more useful ideas. Sociology offered the insights of Marxism, functionalism, sociology of knowledge and the philosophy and history of science. Feminism, having itself an interdisciplinary approach has also provided important insights. This thesis is an attempt to integrate these

insights and experiences in a manner that will be useful to both the nursing and feminist communities.

A. The Research Problem

Registered nurses make up the largest occupational group in the health care system in Canada today (Statistics Canada, 1984). This particular occupational group, like many other service occupations both inside and outside of the health care system, is predominantly female. The 1984 statistics indicate that almost ninety-seven per cent of registered nurses are female. Not surprisingly, like other occupations where the vast majority of workers are women, nursing is accorded little power or prestige in this society. It is often perceived as the mere extension of woman's natural role as wife and mother into a public institution -- the hospital (Ehrenreich & English, 1973).[1]

Having noted that nursing is the largest occupational group in the health care system and that it is a woman's occupation based on nurturing and caring, it is also important to realize that the vast majority of nurses are not satisfied with their occupation. This fact has been the subject of many research investigations. A 1980 nursing employment study indicated that nurses were discontented and were leaving nursing or had already left nursing with no

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[1]This is not to imply that caring and nurturing activities provided by mothers are inappropriate for nurses. On the contrary, and despite debates by theorists in nursing, it is this writer's view that these activities are of prime importance in defining nursing.

intention of returning. This study, conducted by the Alberta Hospital Association (AHA) (1980), identified a number of factors precipitating nurses disillusionment with nursing. They included lack of opportunity to participate in the decision-making process within the agency and failure to be recognized as a valuable member of the organization and patient-care team. In addition, two-thirds of the nurses questioned stated that more time for patient contact was essential to improving working conditions.

A number of attempts have been made by nursing leaders and educators to explain the widespread dissatisfaction experienced by nurses although until recently most have accepted and used the perspective and concepts of mainstream social theory. Cohen (1981), for example, attributes the high attrition rate from nursing schools and nursing practice to the problem of the integration of professional values into the nurse's self-concept. She sees this as the result of inadequate socialization of nursing students during their education. In contrast kramer (1974) uses the term "reality shock" to describe the difficulties experienced by new graduates in their first nursing job. Kramer suggests that the new graduate must assimilate into the hospital culture, abandoning nursing culture, if she is to survive.

It seems that most nursing leaders and educators have been reluctant to examine the philosophical and political underpinnings of nursing structures (Ashley, 1976). Nor have

they examined how historical, political and social pressures have had an impact on nursing. The lack of in-depth questioning has resulted in nurses' acceptance of assumptions and values associated with scientific medicine -- a system of knowledge that developed and has steadily gained in strength since the mid-nineteenth century. It is a system which is being criticized more and more because it values curing over caring, intervention over prevention, professionalism over nurturing and ultimately science over humanity (Illich, 1975; Ashley, 1980; Watson, 1985).

One aspect of this work is to examine some of the reasons for and problems associated with nursing's acceptance of the values of scientific medicine. Another aspect will be to examine the work of nurse researchers who have focused on the lack of power and prestige associated with nursing and have begun to examine how and why certain social factors have constricted nursing and encouraged its acceptance of science as the best system of knowledge (Connors, 1980; Lovell, 1981).

A number ~~of these~~ researchers comment on the need to draw on feminist principles to help nursing break away from the constraints of a scientific model -- a model that constructs knowledge which claims to be a-historical and apolitical but one that in actuality is based on a male-defined perspective. "Feminist education must become central to nursing education, practice and research" (Ashley, 1979, p. v). These researchers believe that to do

otherwise is to spell the end of nursing as a caring and nurturing occupation based on women's knowledge.

From this brief overview it is clear that nursing is at an important juncture. Conflicting ideas pertaining to the role of science, the importance of caring in nursing and even the usefulness of feminist theory are being debated more and more by nurses. Evidence of such concerns is found in nursing journals, at nursing conferences and even in conversations carried out at the "nurses desk" in many hospital wards. But whether these issues are raised in the institutions where nurses are educated, especially at the graduate student level is another matter.

Given the broad and important nature of these questions it is necessary to narrow the focus of this work while at the same time attempting to maintain the richness of discussion. Specifically this research attempts to identify the types of knowledge being developed by graduate nursing students in their major research project - the masters thesis. However, the current trends in nursing education and research, i.e. the emphasis on science, quantitative research methods and statistical analysis indicates that scientific knowledge is accepted as the most legitimate type of knowledge.

Therefore in addition to merely answering the question regarding the type of knowledge being developed several important questions remain to be addressed. Do graduate students in faculties of nursing challenge the existing

methods of developing nursing knowledge? Are they aware of alternative views of what constitutes legitimate research and legitimate knowledge? Do they incorporate these alternative views into their thinking or is there an acceptance of only one kind of knowledge -- scientific -- developed from one kind of research -- quantitative. In an attempt to answer these questions this work will utilize sociology of knowledge and feminist theory to examine the social, political and historical forces that have led nursing to its relience on science.

II. REVIEW OF THE LITERATURE

A. Sociology of Knowledge

Much has been written about the nature and meaning of knowledge. In the past one hundred years it has assumed increasing importance and has received the attention of many of the major thinkers of this period: Marx, Mannheim, Scheler and Schutz to name a few. Despite this attention few satisfactory answers have been obtained to the question "What is knowledge?" or "How and why do we know what we know?"

Perhaps some of the most fruitful work done in an attempt to answer these questions is in the area of social theory called the sociology of knowledge. This body of theory examines some of the most basic concepts and assumptions about what we know. "It is potentially an important area of substantive analysis, being concerned to explain a variety of forms of belief from science to religion" (Abercrombie, 1980, p. 1). Additionally underlying some sociology of knowledge theory is the belief that because "knowledge, like other social phenomena can be sociologically analysed" (Eriksson, 1975, p. 10) it has a liberating potential and can be described as an "emancipatory science."[2] It attempts to discover if a

---

[2] "Emancipatory science" is a term first developed by the Frankurt School of Sociology and Philosophy. "An emancipatory science is one which reveals the relationship of knowledge and interests which the objectivist attitude conceals" (Habermas, J. *Knowledge and Interest* an inaugral address at the University of Frankfurt, June 28, 1965).

particular piece of knowledge has been given a certain social status on its own strength or because it is supported by a particular interest group. It may be considered a fact; truth; scientific; gossip or common sense. In this way, if one understands through sociological analysis why something exists or is believed to be true it becomes possible to change it. Another aspect of the sociology of knowledge is that, in addition to understanding how knowledge is given a particular status, it also helps to examine how that knowledge is used and by whom in that society.

Probably the most well known theorist in this field of study is Karl Mannheim. Although his writing forms much of the foundation of sociology of knowledge theory, a number of difficulties arise when discussing his work. One of the first things to realize is that his work emerges from the German tradition and relies on a rather abstract philosophical base. Another problem is that his own ideas changed, in some ways quite dramatically, during the period in which he wrote. A final problem is the amazing variety of interpretations of his work. Despite these problems, it can be said that generally Mannheim supported and developed the idea that the sociology of knowledge was an unmasking enterprise, that its role was to show that a person's thought is socially located, or socially determined or a function of social position. By doing this he went beyond the face value of the thought itself to the underlying social reality (Abercrombie, 1980). A result of this

unmasking is to show that thought is either socially relative, partial or distorted in that it may be formed by particular social interests. Moreover, these social interests are defined by the particular social group in which the person existed. According to Mannheim (1960) social interests could be represented not only by class but by generation, status group, or occupational group. Mannheim's sociology of knowledge created two major problems, that of relativity and methodology, which remain issues for the sociology of knowledge today.

To say that knowledge is in some way determined by the social context in which it develops is to imply that one kind of knowledge is not better (in any empirical way) than another. In other words, truth does not exist *a priori* to be discovered but rather what is considered truth depends on the social context within which it is defined. This raises several questions regarding the epistomological basis of knowledge.[3] Indeed this perspective about knowledge challenges some of the basic tenets on which society is based. It is for this reason that Mannheim and other sociologists of knowledge have been reluctant to accept the idea of socially relative knowledge and why they have

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[3] Epistomology is the area of study which attempts to define the rules for identifying what knowledge is legitimate and why it is. The most commonly held view is that scientific knowledge, based on the principles of positivism (reductionism, objectivity, quantification) is the only legitimate type of knowledge. Mannheim's concept of relationality questions the objectivity of scientific knowledge because it suggests that the rules on which knowledge is judged are themselves related to the society in which they are developed.

developed theories and concepts that attempt to find a way around the problem. Mannheim (1960) deals with the problem by developing the concept of relationality of knowledge:

> A modern theory of knowledge which takes account of the relational as distinct from the merely relative character of knowledge, must start with the assumption that there are spheres of thought in which it is possible to conceive of the absolute truth existing independently of the subject and unrelated to the social context. (p. 70)

Although a heroic attempt, it is not particularly useful. The first problem is the vagueness of the definition; Mannheim does not tell us which spheres of knowledge can achieve absolute truth and, in fact, he does not define what he means by absolute truth or the criteria for judging it. In later writing, although not always consistently, Mannheim suggests that scientific knowledge is exempt from relationalism and is one of the spheres of thought where absolute truth is possible. However a second problem arises as he does not explain how scientific knowledge is immune from social values. A third problem arises in that there exists no clear definition of social (relational) knowledge and scientific (natural) knowledge.

Since Mannheim, almost all other sociologists of knowledge have either accepted the idea that scientific knowledge is a special kind of knowledge -- one not subject to the influences of the social context in which it arises

and exists -- or they have avoided discussing it at all. That is systematized, specialized knowledge has been left alone because it was thought that this scientific knowledge was different and independent of social influence. This contention was justified on philosophical (epistomological) grounds (Mulkay, 1979).

In recent years, however, there has been a shift in emphasis in the sociology of knowledge. More and more research has been conducted which examines the knowledge claims of science. In an overview of sociology of knowledge Mulkay (1979) states that some theorists are asserting that "contrary to the standard view, it seems that scientific knowledge is not stable in meaning, not independent of social context and not certified by the application of generally agreed upon procedures of verification" (p. 59).

This new way of looking at science has important implications for the the sociology of knowledge. "If the revised view of science is accepted, the basis for the traditional distinction between scientific and social thought is eliminated, as is the exclusion of scientific thought from sociological interpretation" (Mulkay, 1979, p. 62). In addition to questioning the function of scientific knowledge in society it becomes possible to examine the claims of objectivity and universality and the reasons particular interest groups support its claim to special status.

Kuhn (1970) and Feyerabend (1975) are two of the best known critics of science, although more recently feminist theorists have also turned their critical attention to science. The latter have criticized science as socially contingent and not objective, even describing it as male-biased (Fox-Keller, 1985; Spender, 1981). If we reject the idea that knowledge exists *a priori* and accept that the development of what is considered by society to be legitimate knowledge -- in this case science -- is made legitimate because of certain power groups in society then it is possible to view science as male-biased.[4]

Up to this point the discussion has been dealing with somewhat abstract issues of what sociology of knowledge is. A more concrete problem identified earlier is how does one proceed to do research utilizing sociology of knowledge theory. Mannheim proposes that a sociology of knowledge analysis can take two forms. One is an epistomological inquiry concerning itself with the problem of validity and truth. Another type of investigation is a purely empirical investigation through description and structural analysis of the ways in which social relationships influence fact. Mannheim does not suggest that these two methods are necessarily connected and implies that it is possible to do

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[4]This case has been accepted in terms of class, i.e., that which is considered legitimate knowledge in our society has a class bias. Not only do we exist in a class-biased society, we also live in a gender-biased society. Therefore that which is considered legitimate knowledge -- science -- is gender (male) biased. Other types of knowledge exist but are not legitimate. One such type is women's knowledge and more specifically nursing knowledge.

one without the other (Eriksson,1975).

However, even if the large problem of epistomology is not raised there are other concerns. One of the first is the question of what might be an operational definition of knowledge. "A primary task for the sociology of knowledge must be to provide means, that is conceptual and methodological instruments, to describe the knowledge to be analysed" (Eriksson, 1975, p. 14). There have been a number of attempts to do this.

Gurvitch (1971) developed an analysis which divided knowledge into types and forms. He outlined seven types of knowledge: 1) perceptual knowledge of the external world; 2) knowledge of the We, The Other and groups; 3) common sense knowledge; 4) technical knowledge; 5) political knowledge; 6) scientific knowledge; and 7) philosophical knowledge. It is the social framework which decides which type of knowledge is perceived as more important than another. Gurvitch defines social frameworks as solidarities, groups, social class and total societies that evolve characteristic priorities and strategies for knowing. For example, philosophical knowledge occupied first place in the ancient cities. With the rise of capitalism political and technological knowledge became more important. He offers other examples of how different cognitive systems develop in different social structures.

Interestingly, Gurvitch does not identify science as a different or special type of knowledge. "In spite of its

pretensions to be above the melee, i.e., detached from social frameworks, scientific knowledge has but a relative independence, and the great error of positivism was to take these pretensions literally" (1971, p. 33). In later works, however, Gurvitch contradicts himself when he states that even though science is a social creation it has the ability, like philosophy, to transcend specific historical forms (Holtzner & Marx, 1980).

There are a number of problems with Gurvitch's approach. Generally, his approach tends to be a one way analysis, based as it is on Durkheimian social theory. It explains knowledge as a social fact and states that it is the particular social structure that alone defines the kind of knowledge that exists or is given prominence in a society. Nor is there any discussion of the possibility that particular groups in society may have the ability to define which kind of knowledge is "better." In other words, he does not consider the possibility of power groups existing in society and influencing the type of knowledge most valued.

In addition to these broad theoretical problem there are a number of smaller issues that have not been dealt with effectively. First, he does not explain how bodies of knowledge can be anchored in a social framework and still have the ability to trancend them. Nor does he explain why a group will adopt a particular knowledge-related criterion over other criteria. As noted above, the effects of a groups' social location on the choice, development and

maintenence of a particular type of knowledge, which is a particularly important consideration of this work, are left unexplained (Holtzner & Marx, 1980).

That is, for example, how has nurses' social framework (as women and as workers) led to the development of their own type of knowledge?

Holtzner (1968) who criticizes Gurvitch, develops the idea of the relationship of social framework and knowledge. He describes knowledge as the "mapping of experienced reality by some observer" (p. 20). The reality referred to may be of an empirical, pragmatic, normative or supernatural order. The notion that all knowledge originates in an observer makes it necessary to specify the observer's position and point of view. Holtzner calls this point of view a "frame of reference" (p. 30).

Frames of reference include value commitments about what is important to know and epistemological and methodological assumptions. Knowing a frame of reference is crucial for understanding knowledge. Like Gurvitch, however, Holtzner acknowledges that these frames of reference, although utilized by the individual, develop from the individual's interaction with his or her social situation (social framework). One type of social situation that has a great influence on an individual's frame of reference is what Holtzner calls epistemic communities which are essentially work or occupation communities.

Epistemic communities are differentiated on two levels. The first is by the social position of a particular epistemic community. "Power is an integral part of epistemic communities, as it is an integral part of all social interaction" (p. 109). The power of an epistemic community within a society depends in part on the kind of knowledge it uses. "The quality of models for knowledge production and knowledge application or use becomes a determinant and constraint for both the internal working of the community and transaction across its boundaries to the public" (p. 109). The second aspect that differentiates a community is its experiential base. This affects its position in terms of power because if the experiential base is not considered valid by the larger society, the knowledge produced by that experience is not considered valid or legitimate. This seems to be the case in nursing where the experiential base is one of care and support and leads to knowledge which has a human or personal focus as opposed to technical or instrumental knowledge. This is the kind of knowledge that has not been valued in this society and has been associated with an ongoing lack of power for nurses.

Although Holtzner's work provides further insights, it remains on an abstract level. It does, however, support the idea that nurses as a group (or epistemic community) do develop a particular frame of reference. Nevertheless, it is still not possible to define different kinds of knowledge including what nursing knowledge might be.

More recently there has been an attempt to develop some useful tools in the study of the sociology of knowledge. One such attempt has been made by a Swedish sociologist, B. Erikkson (1975) who criticizes the sociology of knowledge for being too abstract. "The sociology of knowledge lacks empirical investigations of specific ideas in specific social settings" (p. 5). According to Erikkson, there are two main strategies for sociology of knowledge research. The first is to select a set of social factors and investigate the variations of knowledge that occur when these factors are changed. The second strategy, and the one that this study will utilize, is to reverse the process and begin with a delimited set of knowledge or thinking and try to discern what social factors influence it (Eriksson, 1975). Before employing this strategy it is essential to have concepts and analytical instruments with which to compare knowledge on a common basis.

Erikkson deals with methodological problems extensively and as a result of his investigations he re-focuses some of the questions raised by early sociology of knowledge theorists. A crucial difference in his approach is the emphasis placed on change which becomes the primary concept. In other words, a concept of knowledge cannot be based on truth but must be based on the change or non-occurring change of knowledge. We can never know whether a piece of information is true -- although we do know our own experiences as real. We can, however, identify whether

change has occurred. It is in this area that the sociology of knowledge is able to provide an analysis. It can examine the reasons for the occurrance or non-occurrance of change and the various social forces at work. It is the idea of the occurrence or non-occurrence of change that is an underlying focus of this work. In other words is the type of knowledge being developed by graduate nursing students changing as a result of particular social pressures, such as the rise of feminism and critiques of science.

In concluding the literature review of the sociology of knowledge it would appear that there is an acceptance of the idea that knowledge develops out of its social context, although the exact relationship between the two remains unclear. Scientific knowledge is not immune to this context dependency. The social context may be as broadly defined as capitalism or it may be more specific as in epistemic communities. In either case it is possible to conclude that nurses develop a particular kind of knowledge -- nursing knowledge -- based in part on their situation as women in a partriarchal society and in part as women involved in a specific gender-defined occupation -- nursing. It is also possible to conclude that nursing knowledge is not given the same status as scientific knowledge. A discussion of feminist theory will help to clarify some of the reasons for this.

B. Feminist Theory

The theoretical discussion about the sociology of knowledge from Mannheim to Erikkson (including a brief critique of science) has taken place within the mainstream of academia. It has utilized a variety of concepts from different social theories including structural functionalism and Marxism. All of these ideas, despite their diversity, have one thing in common. They all have gained a certain legitimacy. In any course on social theory these ideas will be discussed. More recently, however, another social theory has emerged that has not readily been accepted by many in the mainstream of sociology. In fact this new theory is not new at all but is experiencing a resurgence and is emerging from the latest facet in the movement for women's liberation. It is feminist theory.

Interestingly, one of the areas that feminist theory has focused on is the sociology of knowledge although it has not often been identified as such. Feminist theorists state that the knowledge given the highest status today (scientific knowledge) is, in fact, created by and for male interests. Dorothy Smith (1978) notes that feminists must take up the issue of knowledge because most of what we know has been constructed by men. Another feminist, Ruth Hubbard (1981), adds that like all other human products, knowledge -- and she identifies science specifically -- reflects "the outlook and interests of the producers -- men" (p. 213). Before examining in more detail the feminist critique of

knowledge, it may be useful to examine feminist theory itself.

"All the arts and sciences strive to understand lived human experience, its simple dailiness a continued mystery. Those engaged in the attempt to explain it realize that while experience is ungraspable in one sense it is also a human construct" (Keohane & Gelpi, 1981, p. vii). Feminist theory reveals that the construction of women's experience has never been adequate. Rather it has been ignored, trivialized, mystified or hated. Moreover, whatever has happened to it has been decided by men and not women although not without an ongoing struggle.

Feminist theory attempts to reconsider and explain women's experience in relation to "the historical, economic, religious, biological, aesthetic and anthropological constructs and explanations which exist" (Keohane & Gelpi, 1981, p. vii). But feminist theory is even more than a documenting of the injustices of the past or a discussion of the possibilities for change, it is the potential for feminists "to provide new ways of linking the particulars of women's lives, activities and goals to inequalities wherever they exist" (Rosaldo, 1980, p. 417). In this sense feminist theory has a liberating potential for all of society.

Critics of feminism claim that the theoretical basis of feminism has not been proven. Criticisms focus on the lack of scientific analysis, the lack of class analysis or the lack of acceptance of role theory (women do certain things

in society because it is functional). How do feminists respond to these criticisms? How does one explain the nature of women's oppression? The answers to these questions have changed over time. It is useful to examine the development of feminist theory in order to better understand the most recent work of feminist theorists, especially that of Mary O'Brien.

Major changes have taken place in feminist theory in the past fifteen years. A brief examination of earlier works will reveal little acceptance of the view that women's experience as childbearers is an important place to start in understanding women's oppression. Guettel (1974), for example, criticizes radical feminism's reliance on "an adulation of characteristics ascribed to women... peacefulness, spontaneity, sensitivity and emotional responsiveness" (p. 44). She claims that women will not achieve equality until the capitalist mode of production is replaced by socialism. Consequently she does not consider the struggle for gender equality to be of primary importance.

Shulasmith Firestone, in her book *The Dialectic of Sex* (1972), discusses the role played by biology in the oppression of women. It is her understanding that women's nurturing of infants creates a biological imbalance in the family that is reflected in society at large. Firestone's solution to this imbalance is to replace biology with technology to produce a new system that she calls a

"cybernetic" society where distictions based on sex are eliminated.

Another feminist, Kate Millet (1971), rejects the notion of a biological base for male domination of women. Instead she interprets the entire question as a wholly cultural phenomenon. She believes that attempts to give male domination a biological status would create more problems for women.

It seems that these earlier theories attempted to deny biological reality. That they do so causes little wonder since biological reality has always been a major justification for denying social rights and opportunities to women. Women have been told for centuries that because they bear children they need not be educated or educated only to be good wives and mothers. They have been told that they lack the intellectual capability to be involved in politics. The obstacles imposed on women are many, all of them demonstrating why women should not be treated as equals to men. After centuries of experiencing this manner of oppression it is hardly surprising that many women respond by denying the biological reality of being female. It is possible to argue, however, that being female is not the problem. The problem is society itself, a social structure dominated by men, that creates the inequality. When viewed from this perspective the path to equality is different. It becomes necessary to change society if equality is to be attained.

Recent feminist writers are attempting to move away from denying women's experience to focusing on a central female experience -- motherhood. This does not imply a romanticization of the experience; men have already achieved that. Instead feminist theory is beginning to examine motherhood in terms of how it shapes women and how it has been used to control and exploit women. Theorists such as Adrienne Rich (1976), Mary Daly (1978) and Mary O'Brien (1981) have produced detailed theoretical discussions of women's experience in society incorporating the experience of motherhood as a social/cultural experience.

In addition to the content of their theories an important aspect of their work are the statements they have made against the methods that have been used previously to define and explain women's experience. They have criticized the theoretical models of society that are based on objective research and that are more "about" women than an attempt to understand women's actual experiences. Mary O'Brien is one of the most eloquent of these new theorists. O'Brien (1981) uses dialectics and historical materialism to develop a feminist theory that sucessfully develops the idea of female reproductive consciousness and exposes male dominant culture and "male-stream thought." It is the latter, which includes scientific knowledge, which acts to legitimate the male-bias in society because it ignores women. In other words, our society and indeed any society where women are oppressed is oppressive because only "male

stream thought" is represented in its institutions, norms, values and knowledge base.

To understand this situation it is necessary to start with human reproduction. "Reproductive processes, like productive processes, creates the need among people of the world to set up certain sets of social relations to mediate the contradictions which both realms, of necessity, generate" (p. 2). When discussing human reproduction O'Brien refers not only to sexual relations but to social relations as well. "Only from an adequate understanding of the processes of reproduction, nature's traditional and bitter trap for the suppression of women, [can] women begin to understand the possibilities of their freedom" (1981, p. 5).

What is it in the processes of reproduction which creates differences in male and female "reproductive consciousness?" Using an approach that draws from the Marxist theory of production and her own experience as a midwife, O'Brien explains how the labour of childbirth mediates the separation or alienation of woman and child. Men, however, do not experience this labour and so are faced with the continued alienation from the child. Indeed they are not only alienated from the particular child but from continuity with the human race itself. "Man can only mediate his alienation from child and species culturally and historically in cooperation with other men" (p. 6).

In order to modify this alienation men have created social relations which tie them to the particular child and

to the human race. It may be helpful to use an analogy with Marxist theory to understand O'Brien's perspective more fully. In looking at the relation of workers to capitalism from a materialist perspective, one finds that the worker's consciousness is the result of his or her relation to the means of production, or the social relations resulting from the mode of production. The worker creates a life of social relations, which attempt to alleviate the alienation, within the confines of the mode of production. Similarly, it is men's relation to the mode of reproduction which has led to a male reproductive consciousness and certain kinds of social relations. O'Brien identifies public institutions and scientific objective knowledge as products of male consciousness.

Having analyzed the reasons for male dominance in society, O'Brien offers a possibility for change. She states that what is required is a socio-historical model that recognizes that reproduction and production are the necessary substructures of human survival, each grounded in different processes. For change to occur women must be integrated on equal terms into the productive realm and men must be integrated into the relations of reproduction and into the active care of the next generation.

To conclude, there are several major points which may be drawn from this review of the subject literature. First is Mannheim's idea that knowledge is related to the social context in which it develops and that some types of

knowledge are accorded a higher status than others. What is considered to be legitimate depends on the ability of a particular group to label it as such. In this society scienctific knowledge (positivism) is considered to be the only legitimate knowledge. Gurvitch and Holtzner develop the concept that particular social frameworks, including occupational groups, may develop their own knowledge base which may or may not be considered legitimate. This supports the idea that nursing as an occupation may develop its own unique knowledge based on the caring relationship which is unique to nursing. One of the important points which feminists are raising is the suggestion that science, which has developed in a male-dominated society, is male-biased and has been considered as the only legitimate knowledge because men have had the power to label it that way. Mary O'Brien provides a historical and materialist explanation for the development of this situation.

With these insights in mind it is possible to understand nursing's acceptance and use of science as the only legitimate model for the development of nursing knowledge. An examination of nursing both historically and in terms of present-day perspectives will help to explain further how nursing came to use science as a model for knowledge development and aid in facilitating a discussion of some of the consequences of this situation.

III. A SOCIOLOGICAL ANALYSIS

A. The History of Nursing

To gain any important insights from history, it is important to go beyond a mere description of events. An analysis must attempt to link historical events to changes in the broader social formation. Unfortunately this kind of historical analysis is not often used by nurses. Instead, nurses learn "the history of great women who fought to make nursing the profession it is today." An alternative nursing history, one which provides a more useful understanding of the social forces at play in the growth of modern nursing, has been explored by a number of researchers (Ehrenreich & English, 1973; Ashley, 1976; Wagner, 1980). They view nursing as an occupation that evolved as a group composed predominantly of women; a group that was controlled and exploited (although not without an opposing struggle) by outside forces possessing greater prestige, power and status. It is not an insignificant point that the more powerful and prestious group is predominantly male (Roberts, 1983). What follows is a brief description of how this process occurred. Although based mainly on information relating to the United States, it is reasonable to assume that the history of nursing in Canada followed a similar path.

In the mid-nineteenth century, medical doctors who had received some formal education at a university were just one

of many groups providing health care. Others included a large number of women healers and midwives. The medical doctors of this time often relied on useless or dangerous remedies such as bloodletting. The other groups relied more on herbal treatments and comfort measures (Ehrenreich & English, 1973).

In the mid-1800s these groups were functioning in a society which had already felt the rise of capitalism and which was beginning to respond to its entrenchment. A part of the new social relations of capitalism was the rise of the bourgeoisie and the decline -- indeed the abolition -- of absolutism. Accompanying this change in social relations was a change in the knowledge base (world view or frame of reference). Absolutism and its world view based on theology and "Divine Right" was replaced by a world view that was mechanistic, individualistic and based on observable phenomena that would legitimate and be in the interests of the new social relations. This world view was positivism (Navarro, 1980). It seems only reasonable to expect that medical practitioners, who were coming from the new and rising class, would espouse this method of science as the best and only legitimate science and would base their medical practice on it.

Thus, it was not the particular events of scientific medical discoveries that created "scientific medicine" rather it was the victory of the industrial bourgeoisie which established the positivist concept of disease. It was,

to use a phrase from Kuhn (1970), a paradigm shift. In other words, the new paradigm that carried a positivist vision of disease represented a shift or break that was determined by the correlation of social forces in society (Navarro, 1983).

The dominant world view appears in medicine as the submission of medical knowledge to a positivist and mechanistic view, which typifies science created under the control of the bourgeoisie. It is exemplified in the definition of disease as a biological phenomenon that appears in a human body which is divided into different parts.

The rise of positivistic medicine as practiced by the medical profession resulted in the accompanying decline of other types of health care providers. Their knowledge was not considered legitimate because it was not scientific. All that remained was to make this non-scientific knowledge illegal. This was accomplished in the first decade of the twentieth century when laws requiring licenses to practice were passed. Medicine became a white, male and middle class profession (Ehrenreich & English, 1973).

At the same time, and as part of the same process, modern nursing was evolving. Social reformers, acting on the more humanistic, paternalistic aspects of the new political ideology (liberal democracy), concerned themselves with the plight of the poor and the working classes who were suffering from the less pleasant effects of capitalism. One of these side effects was that families were no longer able

to care for their members who were ill or disabled. Dangerous working conditions led to horrible injuries and diseases. Those who needed care were forced to go to hospitals where they were often left to die. It is little wonder that the social reformers saw hospitals as an area requiring their attention.

Florence Nightingale was one such reformer and certainly the most famous in terms of nursing. It is important to understand that Nightingale could not have "created" nursing had other social factors not existed. With more and more people (the poor and working class) requiring care for illnesses and injuries in hospitals, the medical profession -- which operated on a fee-for-service profit basis -- saw the potential for increasing profits. However, they did not want to be concerned with the more mundane and usually dirty tasks which had to be performed for the sick person once the doctor had worked his "cure." What these doctors required was a group of workers who would provide ongoing care under the direction of medicine and who would be obedient. This group of workers was nurses (Ehrenreich & English, 1973).

Nursing, as an extension of women's role, initially received no more status than did women in society as a whole. As a result, nursing became an occupation with little autonomy and little prestige. Nursing leaders recognized this lack of autonomy and status and worked diligently to make gains for nurses. They did succeed in obtaining

legislation that recognized nursing as an occupation distinct in scope and practice from medicine. Legislation, however, did little to change the actual status of nursing. Medical practitioners continued to be the only group with the power to define health care. The difficulty, which nursing leaders either failed to see or refused to admit, was that nursing's problems were a reflection of those faced by women generally (Ashley, 1976). The majority of leaders made no attempt to join the movement for women's rights fomenting at that time. Instead, they attempted to make changes through conciliation and negotiation, focusing on narrowly defined issues while avoiding discussions of independence and equality.

From this brief historical overview it may be concluded that as medicine developed into a profession it became associated with high social status and prestige. At the same time particular social and political factors led to the creation of nursing as a formal occupation closely aligned with medicine. A crucial difference which developed, however, was that nursing as a predominantly female occupation received little status or autonomy. Since that time nursing has attempted to improve its social position. Indeed much of the theoretical work done by nurses has been an attempt to imitate medicine's use of science. By doing this nursing has hoped to promote the idea of nursing as a profession.

One of the methods receiving increased emphasis since the 1960s has been a concern with research and higher education. However, despite the fact that more nurses are obtaining more education and that much more research is being conducted, there have been few attempts to examine the underlying assumptions of professionalism, scientific knowledge and patriarchy. Only recently has this questioning started and it has revealed major problems and raised crucial questions. Much of this recent work has been an attempt to define nursing and the special knowledge on which it is based. What follows is a brief discussion on some current perspectives on nursing.

B. Current Perspectives on Nursing

Nursing has been depicted at various times as: a series of tasks and technologies, a subject of medicine, a broad compassionate and supportive human service and, most recently, a science of human health and behaviour spanning the life cycle (Gortner, 1983). Green (1979) analyzes the differing concepts of nursing as developed by a variety of nurse theorists. She begins her analysis with Pepleau (1952) who defined nursing as an applied science. She then moves to Johnson's (1959) insistence that nursing is a science and finally to Abdellah (1973) and Rogers (1980) who claim that nursing is both an art and a science. Only a few theorists have acknowledged the primacy of nurturing and caring in nursing, Leininger (1981) being the most notable. Leininger

states that "caring is the central and unifying domain for the body of knowledge and practices in nursing" (p. 3) and that it is caring behaviours that distinguish nursing from other disciplines.

The problem seems to be that although nurses have claimed caring behaviours as part of their practice it has received little theoretical attention. Therefore, although nurses may talk about nursing care, the concept remains ill-defined and is used in a variety of ways. Leininger notes that although nursing faculty speak about nursing care it more often than not refers to medical care. "The in-depth presentations on the nature of caring behaviours, processes and patterns remain unexplored" (p. 6).

A major problem lies in Leininger's definition of caring. She describes three types of caring: 1) generic caring, 2) professional caring, and 3) professional nursing care. These definitions are problematic in that they reflect her acceptance of larger philosophical assumptions which seem to be contradictory to her concern with caring. It does not seem possible to care -helping others to grow and actualize as a process or a way of relating that involves development -- professionally because professionalism is by definition concerned with remaining objective and distanced from the client.

Leininger (1981) describes professional nursing care as "scientific modes of helping" (p. 9). Obviously she has not addressed the issues raised by critics of science, i.e.,

that science is socially constructed and is awarded legitimacy by particular powerful groups in society for the sake of their own interests. Feminist theory identifies the powerful group as men. Therefore it seems contradictory to use a type of knowledge (scientific) designed to help certain groups in an attempt to help all groups and individuals.

Although Leininger raises important questions her analysis seems incomplete. Another writer who has addressed this issue is Ray (1981). She recognizes the contradictions faced by nurses:

> Institutional and community health systems appear to be incongruent with caring. Given the structural value system and the economic entrenchment of health care settings with the medical model, caring values are submerged. These values lead to conflicts within nursing. (p. 29)

The consequences of these conflicts are the widening disparity in nursing between belief and action on the one hand and confusion and despair on the other.

C. Nursing Knowledge and Research

A number of important points need to be drawn from the previous discussions. The first is the basic problem of defining nursing. The present definitions seem widely divergent. This inability to describe the nature of nursing in any broadly accepted way has important implications for

what will be described as "nursing knowledge." In fact, there is a paucity of literature addressing the question of nursing knowledge and the kind of research required to create this knowledge, although, as noted previously, there has been more attention given to this problem recently.

A number of factors may be responsible for this increased attention, including the growing concern in society about health promotion and illness prevention, the increased education of nurses in a variety of disciplines (education, history, sociology, political science), the increased cost of health care, and the impact of the women's movement. These factors have resulted in more effort being expended in generating a knowledge base for nursing (Gortner, 1983).

The other major point that has been identified in the previous discussion is that nursing, a predominantly female occupation, has often been involved in an uneven struggle with the medical profession, which is predominantly male and which has a knowledge base that is male-biased. A result of this has been that existing nursing knowledge is very dependent on a "scientific" view of knowledge:

> "Nursing knowledge is that body of knowledge that nurses apply in assessing human responses to actual or potential health problems and in the strategies nurses employ to assist persons to attain, maintain or regain their optimal level of health and functioning. Research is needed to describe and

> predict those human responses and to test out scientifically strategies that will be most effective in assisting persons to attain their goals for health" (MacPhail, 1985, p. 26).

The emphasis of science, i.e., control, prediction and the separation of the individual from his or her environment, is clear.

Although there are many ways of analysing what this focus on science means for nursing, the two questions which seem fundamental are "Why does this scientific focus exist?" and "Why is it not appropriate for nursing?" Some aspects of the first question have been discussed already. As Lovell states, "The medical profession has cultivated and maintained the male dominant position over women...the medical profession has protected what it has (prestige and power) by limiting the full development of nursing potential in the health field" (1981, p. 30).

The second question has not been addressed as extensively, but is a crucial one. By examining the effects of the "scientification" of nursing it may be possible to change the direction in which nursing is moving:

> If nursing is concerned about the strength of its voice in decision making regarding improvements in health services then it would do well to evaluate carefully the limitations placed on this ability by a positivist conception of the constituents of proper science. (Beaton & Tinkle, 1983, p. 35)

The problem with using the positivist view of science in the health care field is that it "fosters fragmentation, processing sickness into raw material for institutional enterprise and promotes the interest of science over the needs of society" (Conners, 1980, p. 42). Illich (1976) describes the result of an emphasis on science as a morbid society demanding universal medicalization and Daly (1978) states that when technical (scientific) knowledge becomes separated from ontological reason, the science which dominates becomes dogmatic and destructive. But perhaps the most vivid description of the problems which arise from nursing's reliance on a positivist science is from Ashley (1980):

> In maintaining a close and long standing relationship to medicine and many other male dominated groups in the health field, which are based on the non-capacity to care, nursing has done great damage to itself destroying its potential for power, prostituting the practice of nursing and killing the moral consciousness of nurses. (p. 20)

What then is an alternative for nursing knowledge? There are a number of options. Conners (1980) states that science and technology must change its present direction and goals to be reconstructed in accordance with a new sensibility she calls the life instinct. This can be interpreted as what Stanley and Wise (1983) call a feminist social science, a science which "should begin with the

recognition that the personal direct experience underlies all behaviours and actions" (p. 165). They go on to say that women (although it can be applied to all people) need to find out "what it is that we know and what it is that we experience. We need to reclaim and rename our experiences and our knowledge of the social world we live in and daily construct" (p. 165). Watson (1985) who has written the most explicit description of what nursing knowledge should be states that a paradigm for nurses must allow human phenomena to emerge and be investigated. The method must be such that the "humanness" of a relationship between two beings is neither diminished nor lost. That is to say nursing knowledge is contextual and phenomena centered. It acknowledges values and focuses on personal experience. Nursing knowledge helps in understanding human responses to illness and the personal meaning of the human condition.

In other words nursing knowledge may be defined as knowledge of people (or people in groups) and health-illness experiences that are mediated by human care transactions. It allows a close and systematic observation of one's own experience and seeks to disclose and elucidate the lived world of human health-illness experience and the phenomena of human-to-human caring (Watson, 1985).

Nursing knowledge develops out of what Holtzner has described as an epistemic community. Given this description of what nursing knowledge is the differences between it and scientific knowledge becomes clearer. That is not to say

that nurses cannot use scientific knowledge but rather that up to this point scientific knowledge has assumed a greater importance to the detriment of the development of nursing knowledge. Additionally much of what has been called nursing knowledge has been in fact scientific knowledge.

The examination of the masters theses in nursing will provide further information regarding the type of knowledge being developed in nursing today.

IV. METHODOLOGY AND DATA ANALYSIS

The first two sections of this chapter examine the theoretical basis for using the selected methodology which is a qualitative content analysis. It includes a discussion and critique of content analysis from a variety of perspectives including phenomenology, feminism and literary criticism. An explanation of the data base is included here as well. The last section of the chapter contains the actual data analysis.

A. Research Methodologies

The main focus of this research is to discover and identify the types of knowledge being developed in current nursing research. The particular nursing research which will be examined here are masters in nursing theses. In doing this, however, a number of methodological problems arise. The first and perhaps most important one is the basic problem of how to analyze knowledge. As noted in the literature review (see Chapter 1) a number of attempts have been made to create a typology of knowledge. Few have been successful. A simple and useful typology is one which has been developed by Ericksson (1975). Ericksson proposes two dimensions along which knowledge is classified. The first dimension concerns the orientation of the knowledge in question: is a certain knowledge body oriented toward either practical applicability or theoretical comprehension? Knowledge is evaluated in proportion to the security and

concreteness of the actions that can be taken on account of it or in proportion to the stringency of questions which can be asked on the basis of the knowledge gained (p.119). The second dimension considers how the validity of the knowledge is judged. Ericksson identifies four kinds of validity. They are as follows:

(i) functional validity -- knowledge which leads to workable and practical results;

(ii) empirical validity -- knowledge resulting from orderly formulated and empirically controlled hypothesis;

(iii) normative validity -- knowledge is viewed as right or righteous based on internal belief;

(iv) revealed validity -- knowledge judged as legitimate by an authority.

These two dimensions, orientation and validity, are cross-tabulated. The result is five identifiable types of knowledge.

The first type of knowledge is *craftsmanship*. It is the knowledge required to perform certain manual or mechanical operations from which certain results are expected to follow. The next type of knowledge is *scientific knowledge*. which is conceptually developed and based on empirical investigations. If knowledge is practically oriented it is called *applied science*. This kind of knowledge also attempts to control or predict results and it is seen to exist without a context. *Social programs* knowledge is practically oriented and based on a normative validity. This kind of

knowledge demands action on behalf of individuals, collective groups or society. The fourth type of knowledge is called *social rationales*. This is also based on normative validity but has a theoretical orientation. It is considered to be the rationale for the actions of the social programs identified above. *Religion, cosmologies and ontologies* are included in the fifth type of knowledge dealing with the ultimate reality of humans, the world and our place in it. It has a theoretical orientation and its validity is based on an acceptance of a revealed truth.

There are a number of problems with Ericksson's typology, the major one being that none of them focus on the knowledge which develops from interpersonal, caring relationships. In addition there is an acceptance of mainstream social theory, such as the precedence of scientific knowledge over other types of knowledge as well as the idea that theoretical knowledge is separate from practical knowledge. Therefore, for the purposes of this research, another type of knowledge is required. It will be called *emancipatory knowledge* and is developed from the writings of critical theorists such as Habermas.

Emancipatory knowledge has both a practical and a theoretical orientation, in fact theory and practice are seen as a singular entity called praxis. Theory becomes a transformative activity that is explicitly political and attempts to describe possibilities for the future. Theory never aims simply at an increase in knowledge as such. Its

goal is people's emancipation from slavery (Horkheimer, cited in Giroux, 1984). Knowledge which is derived from and which in turn creates a praxis reveals the political. It illuminates rather than distorts reality (Giroux, 1984). In addition to illuminating the social world emancipatory knowledge also "instructs the oppressed in how to appropriate the most progressive dimensions of their own cultural histories, as well as how to restructure and appropriate the most radical aspects of existing social reality" (p. 35). Emancipatory knowledge can exist in many areas. Ideal nursing knowledge would be emancipatory knowledge which is created in the context of the health care system. Nursing knowledge develops out of the realm of nursing activities such as the hospital or community and is concerned with health and improving the level of "wellness" of individuals and groups and the caring relationship involved.

Having identified the possible types of knowledge which may be developed by nursing research the next problem concerns the method for analysing types of knowledge. Originally content analysis was to be the methodology used. However, because of the emphasis on quantification a number of modifications have been made. What follows is a brief outline and critique of content analysis.

Content analysis is described as "a multipurpose research method developed specifically for investigating any problem in which the content of communication serves as the

basis of inference" (Holsti, 1969, p. 10). Two important points are raised in this definition. The first is "the content of communication." Content analysis has been used mainly to study the content of the media, newspapers or television. In fact much of the initial work was done during the thirties and forties when foreign newspapers were studied in terms of the kinds of information or propaganda they were printing and disseminating. More recently it has been used to study novels and other literary works. It has not been used to examine scientific reports or research projects.

The second point is the concept of "drawing inference." This raises many questions about the reliability and validity of such research. As content analysis has developed there has been an increased emphasis on proving its reliability and validity. This concern has been expressed in a move toward the quantification of the data to be analysed. "One is limited to recording only those items which actually appear in the document" (Holsti, 1969, p. 30). Despite this emphasis on quantification there has been some move toward the development of a qualitative content analysis methodology. One of the reasons for this is because qualitative analysis allows the investigator to investigate more complex themes -- such as values or goals -- which are not easily categorized or readily quantified (Ferguson, 1983, p. 189). These differing opinions on the value of quantitative or qualitative data in content analysis

reflects similar discussions taking place in other areas of social science research, psychology and education. Arguments against quantitative social science research include questioning its claim to objectivity, challenging the appropriateness of applying natural science methodologies to social research and the fact that such research tends to become abstracted from the reality of people and often results in limited information. Consequently, if quantitative content analysis is considered limited the question of how to do a qualitative content analysis becomes critical. There is however a paucity of information relating to qualitative content analysis. As a result it is necessary to incorpoate ideas from other areas including literary criticism and interpretation, phenomenology and feminist theory.

Originally, literary criticism and interpretation was limited to such things as novels, plays and poetry and was concerned mainly with aesthetics and linguistics. More recently, it has expanded to include the media and in addition has focused on developing sociological understanding, "Unlike the abstract categorization of content analysis a critical reading well done ... could interpret and diagnose back down (sic) the line of semantic links and shifts connecting textual rhetoric and their components with the matrices of meaning in cultural and social organization" (Corner, 1984, p. 89). Corner identifies two aspects of critical reading. The first is

called the textual phase; the process whereby the meaning which lies below the surface content is retrieved. The second phase is the contextual phase. It answers the question "What were the organizing values and assumptions within which the text was produced?" The earlier discussion of the history of nursing and the sociology of scientific knowledge is the contextualist phase. The analysis of the theses (to follow) is the textualist phase.

Another area which offers useful insights is that of hermenutics. Hermenutics, while originally focusing on the interpretation of literary texts, has expanded the concept of text to include discourse and even action (Kvale, 1984). The purpose of the interpretation is to obtain a valid and common understanding of the meaning of a text.

Radnitsky (cited in Kvale, 1984) describes hermenutics as the study of the objectivications of human cultural activity (as texts) with a view to finding out the intended or expressed meaning. Radnitsky also develops seven canons for meaning interpretation which Kvale applies to the qualitative research interview which he views as a text. These canons are useful in the interpretation of the masters in nursing theses which are also viewed as texts of cultural activity.

The first canon involves a continous back and forth process between parts and the whole. The interpreter must always return to the complete work and not view the parts as unrelated segments. A second canon is that the

interpretation ends when one reaches a "good Gestalt." In other words, the interpretation ends when the interpreter feels she has reached an understanding of the text. The third canon involves testing the interpretation against the global meaning of the text or other works by the same author. It may even be possible to interview the author to discuss the interpretation. Autonomy of the text is the fourth canon which means that the content of the statements is the reference point of the interpretation. That is, the interpretation must contain statements from the text to support it. That the interpreter has a knowledge of the themes of the text is the fifth canon. The sixth canon is an acknowledgement that the interpreter is not presuppositionless and that the presuppositions should be made explicit. The final canon states that interpretation involves creativity and its purpose is to enrich understanding and bring forth new perspectives. All of these canons were used in the interpretation of the masters in nursing theses for this work.

The final area of research which provides a basis for the methodology to be used is feminist research.

Feminist theorists have criticized the research methods of social sciences. These methods have been used to legitimate the existing society (Roberts, 1981; Stanley and Wise, 1983; O'Brien, 1981). Vickers (1982) identified a number of feminist criticisms of mainstream (or positivist) social science research 1) decontextualization; 2)

invisibility of agency; 3) objectivity; and 4) linearity, inevitability and the search for laws. Nursing research, like any social science research, should become aware of and attempt to avoid these problems.

To conclude, the methodology on which this research is based attempts to contextualize the data and make the researcher visible. In interpreting the data the writer's intention is not to offer universal laws but to offer a new perspective for the purpose of stimulating discussion that may be helpful in illuminating the social world in which nurses function. It is for this reason that this work can be viewed as an attempt to develop emancipatory knowledge, specifically nursing knowledge. It is an attempt to reveal how nursing's focus on scientific knowledge has had detrimental consequences for the development of nursing knowledge and hence nursing practice, i.e. the caring relationship. In addition it attempts to identify particular social, historical factors which have led to this situation.

Specifically each thesis in the sample was examined individually for words, phrases or concepts which indicated examples of types of knowledge. After each thesis was examined individually all the data were compiled and an overall analysis was performed to answer the research question "What kind of knowledge is being developed in current nursing research?"

B. What about reliability and validity?

Despite the fact that much of what has been written so far is based on a critique of science and scientific research the question of reliability and validity must be addressed. It is, in fact, a difficult issue especially when the research methodology involves a qualitative analysis. There are two points that support the methodology selected. One way to improve the validity of the methodology and the data obtained via the methodology is to produce corroborating evidence from other sources. Gerbner (1964) suggested that all analysis of the mass media must be made with a sensitivity to the ideological framework of the media. This suggestion can be applied to interpretation of scientific texts as well. The discussion of the history of nursing as well as of nursing knowledge and research helps make the interpretation sensitive to the "ideological context." The process of coding the content categories also deals with validity concerns. The definition of these categories, that is, types of knowledge must be done carefully and clearly. Ericksson's typology was chosen because of its clarity although some modification was necessary.

The Sample

The content analysis was done using a convenience sample of masters in nursing theses completed at the University of Alberta during the years 1980 to 1984. Masters

theses were chosen over an analysis of journal articles or research done by faculty because research done by students in the academic environment reflects the most current ideas in a given discipline. Students working in that environment have the opportunity to explore new areas of research whereas researchers employed by government or the private sector are often restricted by financial constraints or the particular goals of the institution. The University of Alberta was chosen because its Faculty of Nursing is viewed as a trendsetter in nursing research. The establishment of the Alberta Foundation for Nursing Research is one indication of the faculty's interest in and emphasis on research. The establishment of a doctoral program in nursing at the University of Alberta supports the view that the faculty is eager to be the leader in the field of nursing and nursing research. The proposal for the doctoral program submitted to the Faculty of Graduate Studies and Research notes that the long range goal of the University of Alberta is to become a center of excellence for nursing enquiry. One of the stated effects of establishing such a program would be to "put the University of Alberta at the vanguard of nursing research in Canada." The ultimate goal of this is to "increase the organized body of nursing knowledge." Two of the questions this work addresses are "What kind of knowledge is this considered to be?" and "Is it knowledge that is the most appropriate for nursing?"

The Master of Nursing Program was founded at the University of Alberta in 1979. Since that time enrollment has increased each year and the number of nurses completing the program has been increasing as well. Between 1980 and 1984 (Fall Convocation) seventeen theses were completed. A detailed content analysis was carried out on all of these theses. The results of this analysis will be discussed in the following section.

The data analysis was conducted by reading each of the theses with the established categories (types of knowledge) acting as a guide to the reading. Phrases which were considered to be an example of one kind of knowledge or another were drawn from the text and further discussed in the analysis. After an initial reading it became clear that most of the data would be drawn from the introduction, the literature review, the methodology chapter and from the summary and conclusion. Very little of the data used in this discussion were taken from the data analysis chapter of the particular theses. Also, use of the literature review was basically in terms of the concepts or theoretical framework used. In some cases the assumptions of these frameworks and the type of knowledge they might be based on was examined. It should be noted as well that not all of the theses contain the same amount of discussion, although all were examined in equal depth. This results from the fact that some are longer, some are more explicit in the type of knowledge they attempt to develop and others simply were

more difficult to assess in these terms. The theses themselves will be discussed in chronological order. Appendix 1 contains a list of the theses as they will be discussed.

C. Data Analysis

The first of the 1980 theses to consider is *The relationship between nurses role conceptions and nursing technology* (Campbell, 1980). This thesis is one of the most difficult to categorize. The author seems to want to develop a measure of instrumentation (technology) that indicates a scientific perspective but she also has as a research objective "to explore nurses' perceptions of technological uncertainty, instability and variability in selected nursing specialties" (p. 7). Such an objective has the potential for developing nursing knowledge because it may illuminate factors which have an impact on nurses' behaviours. This potential, however, is not developed. Later in the thesis Campbell makes it much clearer that the emphasis is on obtaining empirical information. The specific objectives are: 1) to empirically describe three role conceptions; 2) to empirically describe four variables of technology; and 3) to examine the relationship between the above role conceptions and technological variables (p. 27). The goal of determining nurses' perceptions beyond a superficial level has been severely restricted through an emphasis on empirical data. That is to say there seems to be an emphasis

on describing the technology more than on understanding its impact on how nurses feel or think about it.

Another obstacle to the development of nursing knowledge is the use of a questionnaire to obtain data. The questionnaire utilized by Campbell conforms to mainly a dichotomous "yes/no" format that in effect limits the possibility of obtaining information on perceptions even more than a questionnaire format providing a wide range of choices or by interviewing.

The theoretical framework Campbell uses is a combination of role theory and organizational theory. She does not question whether or not organizational theory developed from industrial models can be applied without major modification to the health care system. A result of using such a theory is that patients are reduced to the level of "raw material:" "Raw materials in human service organizations are the people who require the services of the organization, and in hospital are the patients admitted for care" (p. 21). The use of terms such as "raw material" to describe patients should be questioned not only in ethical terms but also because it tends to ignore the role patients may play in defining how nurses function. To ignore the patient as a person interacting in relationships with nurses seems reductionist and to describe them as raw materials is objectivication at its worst.

The recommendations Campbell makes in terms of nursing administration illustrates an unquestioning acceptance of

the existing system. She states:

> In evaluating nursing staff, hospital administrators may wish to keep in mind what differences exist between the value orientation of the nurse and the requirements of the work environment. A dysfunctional nurse may be more effective working in a unit or position that better utilizes her skill and decreases her potential for role conflict. (p. 84)

The underlying assumption seems to be that people must fit the system or they are dysfunctional. The question which might be asked is whether or not the system itself is dysfunctional. For example, Campbell's research indicates that nurses working in intensive care units (ICU) have a high bureaucratic role conception. Perhaps it would be valuable to have nurses with a high service role conception working in the ICU given the tendency for this area to become impersonal and uncaring.

To summarize, it seems that although the potential for developing nursing knowledge exists in the questions raised initially Campbell's reliance on role and organizational theory as well as a quantifiable data base lead to developing knowledge which can be considered scientific.

Stress for nurses working with the cancer patient (Arcand, 1980) is the second thesis to be examined. In the introduction Arcand sets out quite clearly that her work will attempt to create objective and empirical knowledge

(i.e., scientific knowledge). She states, "The majority of the literature is anecdotal, consisting mainly of conjecture based on individual observation or interview and case studies of personal experiences that are supported largely by value judgements (the problem of subjectivity)" (p. 1).

The specific research objectives reveal even more clearly the importance placed on empirical evidence, quantification of data and an attempt to develop knowledge that will allow prediction. The objectives are 1) to empirically identify the stressors as perceived by nurses working with cancer patients and their families; 2) to rank order the stressors; and 3) to identify the best predictors (demographic variables) of stress experienced by the nurse working in the oncology setting (p. 3). It is interesting to note that the author acknowledges the "methodological difficulties inherent in the task of measuring such intangible processes as stress" (p. 6). Irrespective of this problem she continues, offering no discussion of possible alternatives for data collection.

The theoretical framework used in her research is that of stress. It is based on the work of Selye (1976). It is important to raise questions about the applicability of this concept. Although a thorough discussion of this topic is beyond the scope of this thesis there are a number of broad issues that can be raised.

Selye obtained his data, which is based on a strictly physiological model, through animal research. When one

discovers how this research was conducted it becomes necessary to ask whether or not it is valid or reliable. Connors and Crowley (1985) note that "The methods used to induce these ulcers in animals (physical torture) bear no resemblance to the etiological factors associated with ulcer development in humans (i.e., conditions of long term psychological [tension])" (p. 25). In the same manner that research based on sexist or racist assumptions is not valid, research based on the maiming and torture of animals must, at the very least, be questioned critically and possibly rejected. Arcand, like most nursing researchers, accepts unquestioningly the concept of stress as developed by Selye.

Returning to the thesis itself, the method of data collection used by Arcand was a two-part questionnaire. Part One was a seventy-two item questionnaire utilizing a situational format. Part Two collected demographic data and information about the nurses' experience with death and dying. Some examples of questions asked are, "Do you feel you have come to terms with your own fear of death?" The respondent could choose from the following answers, "yes," "to a great extent," "only in part" and "no." Item 98 of the questionnaire, "What does death mean to you?" is another telling example. There are four answers to choose from. These questions epitomize the attempt (as required by science) to reduce human experience to a measurable and codifiable entity.

In the data analysis, Arcand makes an interesting comment about regression analysis. She states:

> The most significant point to note when interpreting the results of the analysis for this study is the lack of a select few strong predictors for each source of stress. Moreover, it is very important to acknowledge that there is a large percentage of variance not explained (greater than 62.5 per cent for each type of stress.(p. 91)

In addition, she notes that one-half of the stress items obtained *a priori* were not utilized in the final factor solution and furthermore 42.6 per cent of the variance in the thirty-six items remained unexplained (p. 98). She concludes by saying that these problems reflect the complexities in attempting to measure a multi-dimensional phenomenon such as stress (p. 98). Regardless of this problem, however, she does not examine even briefly possible alternatives for data collection. Instead she concludes that the instrument needs to be improved and that further research is required to develop instruments to measure the nurses personal death awareness and death anxiety.

From the reading of Arcand's thesis, it seems the purpose of the thesis as originally stated, i.e., to develop an understanding of the stress nurses experience when caring for patients with cancer is put aside in favour of the development of a measurement tool. It is for this reason that it is not considered to be nursing knowledge given the

definition of nursing knowledge developed earlier. It is instead an attempt to develop knowledge which is closer to the definition of scientific knowledge.

Two other theses were completed in 1980. The first of these *The relationship between the nursing care of the preterm neonate and selected physiological parameters* (Tomney, 1980), is a quasi-experimental study done as part of a larger study conducted by the Department of Pediatrics at the University of Alberta. The objective of the study was to describe nursing care, its effects (physiological) on premature infants and whether receiving a paralysing drug would alter the infants' physiological response. It seems quite clear that Tomney's research falls under the category of scientific knowledge -- the search for causation (giving pancurar. leads to better oxygenation and improved intercrainial pressure), the use of controls, discreet unrelated variables and the emphasis on biological systems. Although this may be important research it is not nursing research in that it focuses on medical (technical) knowledge and not on the caring relationship. The fact that it is a subproject of a medical study raises additional questions regarding control and autonomy of nursing research.

The final 1980 thesis is an epidemiological study. *Investigation of neonatal noscomial salmonellosis* (King, 1980) is concerned with investigating an outbreak of Salmonellosis "with a view to controlling the dissemination of disease and preventing the occurrance of further related

outbreaks" (p. 2). This is another study that has the potential for developing nursing knowledge by examining the relationship between social conditions and the development of disease. However, using mainstream epidemiological methods it develops knowledge that could be called applied science, i.e., how to improve techniques so that microorganisms are not spread. The medical model of disease is used, rather than a more holistic nursing perspective, so that the problem of nosocomial infections becomes one of controlling a particular bacteria and not a complex set of interrelated factors.

The next thesis to be examined is an interesting one in that it combines certain aspects of nursing knowledge with social programmes knowledge while at the same time trying to be scientific. In a sense, it exemplifies many of the conflicts and contradictions which nursing faces. The resolution to these conflicts found in Solberg's (1981) thesis, *Hospitalized mothers early postpartum breastfeeding experiences* does not favour the development of a type of knowledge which would assist nurses in developing the caring relationship with this particular group.

The attempt to create nursing knowledge appears in the use of personal interviews to collect data and in the brief comments about the importance of nurses seeing the global political aspects of their research. She quotes Rosenblum (1980) who has urged nurses to become involved as a profession on local, national and international levels in

matters of world concern (p. 12). However, these ideas and methods are not fully developed. The interviews are based on a standardized interview schedule which allows for the coding of data, a statistical analysis and the creation of numerous tables.

In the discussion of methodology Solberg states that there are many factors affecting and influencing a woman to breastfeed her infant. For the purposes of clarity three categories of factors are created -- sociological, cultural and psychological (p. 16). Although this categorization is reductionist in that it tends to ignore the interrelation of these three categories it is made even more so by the fact that sociological factors are considered to be demographic only. Solberg has ignored larger social factors such as the position of women in society, what is considered normal for women and other aspects of the socialization of women. Cultural factors which may have taken up some of these broader issues are seen as basically family related factors, such as whether the woman's sister or friend has breastfed sucessfully.

In terms of the general theoretical framework, the author relies on a systems approach. This approach has been widely accepted in many areas of social science. However, it has also been criticized for being a-contextual and apolitical. The idea of interrelated and interdependent parts with a goal orientation assumes consensus and denies conflict.

Another point which indicates the attempt to develop scientific knowledge is Solberg's description of the results of the research as "descriptive and exploratory" (p. v) with a recommendation for further research. The implication is that the future research would be more scientific and based on "hard" data. She also recommends further investigation on the research instrument used to measure successful initiation of breastfeeding (p. 97).

There is one other very interesting aspect of Solberg's thesis. It is the only thesis that attempts to develop social programs knowledge. The underlying assumption of this thesis is that women should breastfeed their children and it is important for nurses to develop knowledge that will allow them to teach/encourage (?compel) mothers to breastfeed. The tone of the thesis seems to suggest that mothers who do not breast feed are either failures ["Chamberlain (1976) did a study of the personality differences between thirty breastfeeding mothers and thirty bottlefeeding mothers. His conclusions suggest breastfeeding mothers are more secure in their mothering role"](p. 22) or selfish:

> The woman's main or primary reason for choosing either breast or bottle reveals something of her attitudes. Four studies ... more frequently report that the choice of breastfeeding was associated with infant centered reasons, e.g. it's good for the baby, and the choice of bottle feeding was associated with mother centered reasons, e.g. it's

more convenient for the mother. (p. 22)

This discussion has a strong normative tone and ignores the effects of social context on the mother's decision to breastfeed. Solberg's work again raises questions about the kind of research used to support the nursing research. Much of it seems to be accepted without critical examination. [5]

Futher evidence of Solberg's attempt to develop scientific knowledge is the use of measurement and the search for a measurement instrument: "A review of the literature does not point to an instrument that could be used or adapted to collect the necessary data" (p. 52). As a result of the failure to find a tool a fifty-eight item standardized interview schedule was developed to yield the desired information for the study. The data from the interviews were coded and subjected to a number of statistical manipulations. In fact, thirty-three pages are taken up with the data analysis using statistical terminology and tables to illustrate.

The final conclusions of Solberg's study are quite revealing. The first recommendation is that "... further work is required to be performed on the instrument to establish validity" (p. 91). Stated another way she notes

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[5]Another example of questionable research involves the work done by Sousa and associates. Sousa's research examined the relationship between early skin-to-skin contact of the mother and her infant and maternal bonding. In each of three studies conducted an experimental group received early skin-to-skin contact and a control group were separated from their infants for a twelve-hour period. It seems odd that a study in which women and infants are treated as experimental objects is not questioned regarding the validity of such methods and the results obtained.

"Further investigation is recommended on the research instrument to measure successful initiation to breastfeeding" (p. 92).

Another of the final conclusions hints broadly at social programs knowledge: "... programs that are aimed at increasing breastfeeding incidence would be best directed towards the adolescent female in family life studies" (p. 92). This is a frightening scenario. Young women are to be the sole focus of this program. It implies a number of assumptioms: 1) that all young women will become mothers i.e., assume the traditional role; 2) it ignores other factors which may inhibit a woman from breastfeeding (work, poor nutruition, difficult labour and delivery, inconvenience, simply choosing not to) and in fact gives the impression that a woman is either a bad mother or a failure if she does not sucessfully breastfeed.

In addition, it is well-documented that young women are exposed to ideas about the traditional role of women throughout most of their lives both in school and in society at large. It does not seem helpful to add another program promoting the same idea. This recommendation was made without considering the broader implications for women. As such it seems to be more of a combination of scientific and social programmes knowledge rather than nursing knowledge.

The effect of the nurse - patient interaction on the patients perception of pain (Doughty, 1981) is an attempt to "explore the nature of pain from a nursing perspective and

the effect of the nurse patient interaction on the patient's perception of pain" (p. 3). The subjects for this research were all women undergoing either gall bladder surgery or hysterectomies. The use of female subjects is never explained, a fact which is problematic given the social aspects of pain and pain reporting as well as the social aspects of having a hysterectomy. Instead, the author has decontextualized "pain" and reduced it to a quantifiable entity.

Doughty describes her research as a "... pilot project, mainly descriptive and exploratory, which involves the testing of instruments to measure patients' perception of pain and distress and the nature of the relationship between the nurse and patient" (p. 28). Data were collected through observation, structured interviews, a questionnaire and four measurement instruments including the Relationship Inventory described as a "systematic tool for measuring the degree of interpersonal relationship" (p. 31). There is no discussion of the ability or usefulness of such a tool to measure something as indefinable as human relationships.

Doughty acknowledges the problem of quantification: "If defining pain is difficult, measurement of it is even more so. Patients' pain is subjective and prone to constant and unpredictable change" (p. 34). Yet despite this acknowledgement the author continues and no alternative methods are suggested. The assumption seems to be that human experience must be reduced and quantified if we are to

understand it. Out of fifty pages of data analysis in statistical language comes the recommendation that "...further work is required to strengthen a pain measurement tool and development of an instrument to measure the interaction between the nurse and patient" (p. 96). There is another recommendation which raises the question that nursing students may be misinformed about the requirements for an acceptable supportive relationship with patients (p. 95). Unfortunately this recommendation is not explored fully. Doughty's thesis seems to be another case where the initial question is an important one but it is sidetracked in the quantification of the data, perhaps in an attempt to develop scientific knowledge.

Another study which examines nurse patient relationships is *Validation of patient satisfaction with nursing care* (Thorpe, 1981). This is certainly an important topic in terms of the development of nursing knowledge. However, instead of developing an understanding of how patients experience nursing care the purpose of the thesis shifts to an attempt to "... establish validity for an instrument designed to measure satisfaction" (p. 28) and to illustrate that "... the rationale underlying this investigation is that there is a distinct need to develop reliable and valid measurement devices through sound research methodology in exploring all aspects of nursing care" (p. 92). Measurement becomes the ultimate goal. The term "sound research methodology" is repeated often

throughout the text although the term is never defined explicitly. However, with the emphasis on measurement and measurement instruments it is clear that the author is referring to scientific research methods -- quantification, objectivity and statistical analysis. The point about previous research being based on questionably valid tools is an important point. Yet, the possibility of obtaining data in other ways i.e., without the use of a measurement tool at all is never discussed.

The recommendations which are made at the end of the thesis point out again the contradictions faced by nurses attempting to use "sound research methodology." The first and second recommendation deal with the questionnaire format and sample size. The third recommendation suggests that interview techniques be introduced. This seems to indicate some acknowledgement of the value of nonquantifiable personal experience. However, the final conclusion confirms the commitment to scientific knowledge "... the key to the trustworthiness of results in any research endeavour and hence the implications derived from same rests on the psychometric principles of sound research" (p. 82). In other words quantification is best.

Nursing ethics in Canada: Two decades (Lamb, 1981) is a description and analysis of nursing ethics in the 1920s and the 1970s. The thesis compares beliefs about nursing in the selected periods and examines the relation between ethical beliefs in nursing and the broader social context in which

the beliefs occurred: "The comparison of contexts is focused on the similarities and differences in the social factors influencing or influenced by ethical beliefs during the two decades" (p. 4). It is this latter question which indicates the potential for developing knowledge which shows the relationship between thoughts/ideas and the social context in which they occur. This is the kind of knowledge which has been defined as nursing knowledge.

While Lamb's research contains some aspects of nursing knowledge it is not fully developed. Her descriptions of the beliefs and the social contexts of the two periods are quite detailed. She describes how Canada in the post war years "... was in the midst of a moral and social reform movement" (p. 8) which helped to foster the development of public health nursing. The role of women in the society of the 1920s is discussed, albeit briefly, as well as the effect of labour unrest and changes in hospital organization when "... the principles of scientific management used in modern society began to be applied to nursing services in hospitals" (p. 38).

In terms of nursing in the 1970s Lamb mentions the increasing numbers of hospital-based nurses, collective bargaining and changing educational trends. Although these descriptions are a valuable source of information a more indepth analysis of the relationship between the social context of nursing and the development of particular ideas/ideals in nursing might have been more valuable. As it

is the analysis is superficial. Lamb states at one point that "... the context of nursing ethics refers to environmental factors that seemed to be influenced by the moral beliefs of each decade" (p. 91). "Environmental" seems to have been used in an effort to avoid a discussion of politics, power and conflict although she does identify factors such as legislation, administration and organization of nursing service as having an impact on ideas about nursing (p. 100). As a result it becomes difficult for the reader to learn from the information and apply it to the situation of nursing today.

Despite this shortcoming Lamb's research provides a great deal of information about the history of Canadian nursing which has the potential of being examined more critically by others. As well, there is the very important fact that she does acknowledge the relationship between ideas and social context, which is a step toward the development of nursing knowledge.

As the title suggests *Sense of coherence: a measure of health status* (Payne, 1982) concerns itself with measurement. "The rationale underlying this investigation is that there is a distinct need to develop reliable and valid measurement devices" (p. 2). In this case the focus of measurement is the concept of health.

The main objective was to develop a scale for measuring "sense of coherence" as described by A. Antonovsky (1979) and to establish some validity estimates for the developed

scale (p. 3). Simply put Antonovosky believes that the origins of health are found in a sense of coherence, i.e., that the greater the sense of coherence the more health one will have.

As in a number of other theses examined, Payne's investigation has the potential for developing nursing knowledge. There is an acknowledgement that health is related to things other than the mere absence or presence of microorganisms and that there are multiple factors involved in being healthy: "The new emphasis on health as a right and illness as medically and socially engendered, reflect the conceptualization of health as a consequence of the good life rather than professional medical care" (p. 6). The author's literature review provides a critical analysis of ideas developed over time about the concept health. At one point she states "... perhaps a phenomenological approach would be a more suitable methodology" (p. 57) but this idea is not expressed again until the conclusion.

Given the difficulties in conceptualizing health as concluded by Payne at the end of the literature review it seems somewhat premature to begin to try to measure it, that is if one is able or needs to measure it at all. In spite of all the discussion the fact that she still chooses to attempt to develop a measurement scale raises important questions as to why other methodologies were not discussed more fully. The emphasis on measurement suggests the entrenchment of a limited view of research, a scientific

view that equates measurement with understanding.

The methodology used is a quasi-experimental design utilizing a questionnaire. After the data were collected and analyzed Payne seems to recognize that the research must go beyond measurement. She states that further investigation is required to examine "... what life experiences foster a growth of a sense of coherence" (p. 169) and "... the phenomenological approach may result in more adequately defining healthy behavior" (p. 169). Examining either or both of these latter two points would help to develop nursing knowledge.

The only other 1982 thesis is Oberle's *Vascular status during dietary intervention in peripheral arterial disease.* The purpose of this study was to examine the effectiveness of two diet regimens in the treatment of peripheral arterial disease (PAD). It was part of a three-year pilot project involving a number of other disciplines including medicine, surgery, physiology and home economics at the University of Alberta. The methodology was a quasi-experimental design using dietary intervention.

Although the study was not able to indicate definitively that one diet was more effective than the other, it is very interesting to note a number of observations made by Oberle in her discussion of the research findings. She states, "Many [subjects] expressed the sentiment that they had been given a new lease on life simply because someone cared enough to help them help

themselves" (p. 138). This suggests the importance of other types of nursing research. Nurses need to develop knowledge which will help them understand the caring process and its effects on health. And although identifying which diet is better for reducing cholesterol may be important it should not be the main focus of nursing research.

Margaret Prowse's 1983 thesis *The needs of family members as perceived by themselves and by nurses* attempts to determine the relative importance of selected needs of family members of intensive care unit patients as perceived by family members and ICU nurses. She uses the theoretical framework of a nursing model of crisis rather than the medical model of crisis because instead of focusing on stasis and pathogenisis, the nursing model emphasizes potential growth. The nursing model of crisis, however, continues to see crisis as an individual psychological event which results in a decontextualization of health from the material conditions of the person's existence and ignores the relationship between the psychological and the social. Prowse states, "The focus of health and healing exists within the individual" (p. 142) and "... states of health that are not optimal can be opportunities for growth and learning if adequately utilized by the individual" (p. 12). Given this theoretical construct emphasising the individual stripped of gender and social context it is not surprising that the methodology used in the research is a questionnaire designed to allow easy statistical analysis (a fixed

alternative answer on a four-point scale). After the questionnaires were given, returned and analysed Prowse makes a number of recommendations. She states that a knowledge of the differences between these perceptions (nurses and patient families) would assist in the planning of the most appropriate interventions (p. 87). It seems slightly simplistic to assume that once the differences are known the situation can be solved. Perhaps it is also important to examine why the differences exist. If the focus of the research were to include this aspect there might be broader implications for nurses, nursing education and nursing research. It would assist in the unveiling of factors which inhibit nurses from developing fully the caring relationship.

Another recommendation is for the development of tools for systematic assessment and care planning (p. 92). This could result in nursing becoming more and more impersonal. It suggests that nurses would assess their patients on the basis of a checklist (which is already happening in many areas with the move to patient classification) instead of on the basis of an interpersonal and caring relationship. Prowse also suggests experimental studies although she does not explain how these would be conducted. Finally she concludes that a larger sample size is required to allow for generalizability and refinement of the questionnaire suggesting once more that it should be more scientific.

Two other theses were completed in 1983. Both are experimental and based on a physiological framework. Peter's *The physiological responses of the respiratory distressed neonate to two forms of chest physiotherapy* is a "clinical, controlled, randonized experiment" (p. 47). This study is a good example of applied science. It is based on a practical question and is attempting to find the best way of performing a task.

Effects of endotrachael suction and lung hyperinflation on arterial oxygenation in critically ill adults (MacKinnon-Kesler, 1983) is a two-way within-subject experimental design and is another attempt to develop applied science knowledge.

Validation of nurses' job satisfaction (Harris, 1984) is concerned with the development of a tool to measure job satisfaction. The research focus shifts swiftly from nurses and job satisfaction to a problem of construct validity: "It is therefore imperative that nursing researchers address the issue of reliability and validity if substantive information concerning the topic is to be obtained" (p. 4).

It has been noted that one important aspect of scientific knowledge is reductionism -- reducing a problem to its smallest aspects and isolating them from one another in an attempt to find causation. A number of the assumptions Harris makes initially indicate the move toward reductionism. She states, "Although job satisfaction may be related to factors such as familial responsibilities and

life cycle stage this study was restricted to examining the linkages in the workplace" (p. 5) and that despite the acceptance that job satisfaction is a multi-dimensional concept "... the investigation was restricted to the investigation of a single trait" (p. 5). The importance of objective data is easily identified as the author notes "... while the literature reveals an abundance of personal opinion concerning this subject there is a lack of empirical data " (p. 25). She identifies another problem of early research as the small sample size: "... however the recent introduction of large scale studies ... has allowed investigations to generalize their results beyond the study respondents" (p. 28).

The framework utilized is that of role theory. Talcott Parsons developed the concept of role theory during the 1940s and 1950s. It has been critiqued quite extensively as conservative and supportive of the status quo (Barrett, 1980; Collins, 1974; Armstrong, 1984). Here again is a lack of critical examination of the frameworks used. By focusing on roles and terms such as role ambiguity, questions concerning power, control and economics dissappear. Instead of the problem being viewed as one of groups in conflict it becomes a question of individuals having problems fitting into their role which is seen to exist *a priori*.

The instrument used by Harris is a questionnaire using a five-point Likert scale, a modification of one developed previously for research on job satisfaction. The data

analysis of Harris' thesis is revealing in that it consists of fifty-one pages of statistical analysis including thirty-one tables. After all of this she states that the findings are tentative and concludes that "... different operational measures can and do result in different conclusion" (p. 122) and that the concept of job satisfaction needs more development (p. 124).

Another 1984 thesis to be examined is Toohey's *Parent nurse interactions in the emergency department: an exploratory study*. She defines her study as an exploratory one because it is mainly descriptive and does not rely heavily on statistical analysis. It is important because it does not rely on a measurement tool or questionnaire and the importance of contextualizing the research is acknowledged. The use of interviewing as the method of data collection indicates the importance placed on the lived experience of parents who have brought their child to the hospital and, as noted previously, the influence of the context of the situation is acknowledged, accepted and incorporated into the research. However, the research is not carried to its fullest extent. Instead it becomes limited and constrained by an attempt to fit into a scientific mode. The definition of context, for example, becomes not a social historical political one but only a physical one (the emergency department). In addition, the theoretical framework used tends to be a manipulative one which views subjects as objects. Goffman's (1959) concept of backstage and

frontstage behaviours is used to understand how and why people behave as they do. "Goffman uses the language of the theatre, that is, actor, stage, performance and audience to analyze interactions, which he views as performances staged to members of an audience in a particular setting" (p. 5). This framework allows only superficial observation and does not attempt to understand the social context of people's behaviour.

In conclusion, it seems that there are possibilities for developing nursing knowledge but the limitations of the theoretical framework prevent its development. In other words it becomes a description of events without attempting to understand why people behave the way they do. Since it does not do this it cannot help the research subjects in creating change a direction they choose.

Infant feeding in North America, 1880-1920: The physician nurse relationship (O'Heir, 1984) is an historical analysis which, as with a number of other theses examined thus far could be considered a beginning in the development of nursing knowledge. It has a historical perspective, examines how social context effects a phenomenon and to some extent discusses critically how and why physicians and nurses promoted or limited particular ideas and practices related to infant feeding: "The fact that infants in all classes of society were in need of properly modified milk was for years given limited attention by many members of the medical profession" and "... the predominant interest of

physicians, evident in both medical and nursing literature, appeared to lie in becoming established as primary authorities in all aspects of infant feeding" (p. 2).

Despite these provocative and important statements O'Heir tends to focus on "... the development of milk substitutes and other medical interventions aimed at resolving the infant feeding problem and only ... considers the relative contributions and relationships of the medical and nursing profession" (p. 4). In a sense, O'Heir backed away from an examination of the political questions. The summary of her study suggests a number of contradictions which may stem from the lack of a broader political perspective. At one point she states, "The analysis of the nursing literature indicates that nurses and nursing were not exploited by physicians" (p. 102). Following in the same paragraph, however, she says, "The power and authority over nursing practice ... lay in the hands of the physician" but then adds "... and nurses agreed that this should be the case" (p.103).

Although O'Heir has provided nursing with important historical information the lack of an in-depth analysis prevents her from developing the information into nursing knowledge. It becomes social rationale knowledge.

The final thesis to be examined in detail is *Nature of interaction in elderly mother elderly daughter dyads* (Gartner, 1984). The purpose of this thesis is "To explore the nature of the interaction between elderly mother and

elderly daughters who live in the same household" (p. 5) and to examine why nurses should be interested in this type of relationship.

The research was a qualitative descriptive study using unstructured interviews. The data were collected and analyzed using grounded theory. Gartner states, "The purpose of using the grounded theory approach is to facilitate the discovery of the real experiences of the individual in the situation" (p. 20). This comes very close to the definition of nursing knowledge described earlier.

Gartner goes on to challenge the notion of validity and reliability which all of the other theses examined accepted:

> The notion of reliability and validity in the traditional quantitative sense is presently being challenged ... the concepts of internal and external validity used in quantitative research are replaced by concepts of credibility and fittingness ... [and] similarly the concepts of reliability and objectivity are replaced by that of auditability and confirmability. (p. 28)

Having questioned some of the assumptions of quantitative research, Gartner goes on to say in her discussion of the implications of her findings that, "Nurses can become politically aware and active in order to improve programs for the elderly" (p. 100). She suggests that nurses should present briefs to the government "... to change the status quo" (p. 100) and that nurses can play a part in

helping mother/daughter dyads understand the dynamics of their relationship.

Given the above information it would seem that Gartner's thesis does develop nursing knowledge. She attempts to understand the lived experiences of those she is researching and believes that nurses should use that understanding to create both political change and personal change.

To summarize, from the data analysis of the masters in nursing theses it can be concluded that only one thesis develops nursing knowledge. Although a number of others have the potential to develop nursing knowledge they are hampered by methodology and theoretical frameworks. The following chapter will examine in more detail the results of the data analysis. A number of aspects will be discussed including such things as research design, research tools used, research subjects and the use of statistical analysis in data interpretation. In addition a brief analysis of the masters theses in nursing published since 1984 will be conducted to note whether there are any changes occurring in the types of knowledge being developed.

V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The in-depth analysis of the seventeen masters in nursing theses completed from 1980 to 1984 has revealed a number of points as well as raising important questions about the nature of nursing research, its current direction and possibilities for the future.

The first part of this chapter will summarize the major points of the theses. Conclusions will then be drawn and an answer to the research question will be provided. Finally, recommendations will be made with respect to nursing education, nursing research and the women's movement.

The major point to be drawn from this analysis is that in the majority of cases the purpose of the research centers on the measurement of variables or the validation of a measurement tool. Eight of the theses (Campbell, Solberg, Prowse, Peters, MacKinnon-Kesler, Oberle, Tomney and King) measured variables while four others (Thorpe, Doughty, Payne, and Harris) attempted to test the validity of a measurement tool.

In terms of research design, five authors (Tomney, Payne, Oberle, Peters and MacKinnon-Kesler) used an experimental or quasi-experimental design; one (King) was an epidemiological study; two (Lamb, O'Heir)were historical analyses; and the remaining nine were described as exploratory/descriptive. A crucial aspect of the research design is the method of data collection. Six authors collected data using questionnaires (Harris, Prowse, Thorpe,

Campbell, Arcand and Payne). One (Solberg) used a structured interview schedule. Another (Doughty) used a structured interview, a questionnaire and observation. Two (Gartner, Toohey) used unstructured interviewing techniques while the remaining seven used a variety of data collection methods including a survey of historical literature and the use of a number of data collection forms.

Aside from the two historical surveys (Lamb and O'Heir), all but one of the theses used statistics in the data analysis, although this is not particularly surprising given the emphasis on codifiable data. In other words, seventy per cent of the theses rely on such methods as factor analysis, regression analysis and correlation coefficients to comprehend the data. Only one of the theses (aside from the two historical analyses) use a non-quantifiable methodology. Gartner (1984) relies on unstructured interviewing to collect the data and uses grounded theory to analyze the information she has collected. The implications of these results will be discussed in the following section. However, before proceeding to that discussion there remain a few additional points to discuss.

Another aspect of the theses which is of interest concerns the subject of research. Five of the seventeen theses examined nurses or nursing. The two historical analyses both looked at aspects of nursing while the other three (Harris, Arcand and Campbell) used nurses working in

various hospital settings as their subjects. Three of the theses (Solberg, Doughty and Gartner) used only women as subjects. Three (Tomney, Peters and King) used only neonates while three others (MacKinnon-Kesler, Oberle and Thorpe) used adults (male and female) as subjects. Families were the subjects of two of the theses (Prowse and Toohey). Adult males (specifically) were the subjects of only one thesis (Payne). It is interesting to note that thirteen of the seventeen theses were researching women, children or families and all but one of the theses treated the subjects scientifically.

Before making any final conclusions regarding the direction nursing research is taking the masters in nursing theses completed in 1985 will be outlined briefly. Only the abstracts of the 1985 theses were read. The focus of the following comments is on the method of data collection and analysis.

Of the eight 1985 theses only one attempts to use qualitative data collecton although it is severly hampered by the use of a structured interview guide. This particular thesis investigates the feelings of pregnant women who have had a previous fetal death experience (Bodmar, 1985). However, instead of allowing the women to express their own concerns they are asked (as per the interview schedule) such questions as, "Would you describe to me what you are feeling toward your baby at the present time?" or "When your baby kicks how do you feel?" The researcher in this case is

identifying factors which she feels would be important. It is a process that precludes the woman from expressing additional feelings that may be more important to her. This type of structured interview in effect treats the subject as an object from which to elicit information the reseacher has deemed important. In addition to Bodnar's study four other studies (Ambrose, Campbell, Evans, Hayward) focus on mothers, infants or fathers. All of them use a variety of tools to collect measurable (codifiable) data and all analyze the data by means of statistics. Two other theses completed in 1985 (Hopkinson and Bourret-Thaumberger) concern readability of health education pamphlets and cognitive strategies used by nurses respectively. Both of these studies rely on a statistical analysis to interpret the data collected.

Having completed an analysis of seventeen masters in nursing theses and a brief analysis of the eight most recent theses, the conclusion to be drawn and the answer to the research question originally posed in this thesis is that knowledge which has been defined as scientific, using Ericksson's typology has been and continues to be the dominant type of knowledge being developed by graduate students in the Faculty of Nursing at the University of Alberta. Many of the theses began by posing questions that are critical in the development of nursing knowledge. However, the research rarely addressed the questions asked. Instead, the research became what Susskind (1985) terms an

"analogue" of the question in which the original concern is "one or more steps removed from the context of concern, to make the study more amenable ... [to] sophisticated quantitative analysis" (p. 13). The result is that instead of answering the question posed the problem becomes the development of a tool to measure a phenomenon. It is the result of a paradigmatic view that scientific knowledge and research is the best or indeed the only kind of knowledge and research that leads to this situation.

Perhaps what is most disturbing is that there is very little, if any, acknowledgement of the problems of scientific research in the field of nursing. Nor is there any suggestion of possible alternatives. In conjunction with this observation, despite the debates conducted by social scientists about the importance of qualitative research there is no suggestion that the graduate students writing these theses were aware of these issues. Moreover from the brief analysis of the 1985 theses, it is clear that the idea that quantifiable is best is firmly entrenched. The majority of authors do not recommend repeating the study using qualitative research methods but rather suggest that the research be repeated using a better questionnaire or another measurement tool. Above all else, the total lack of alternative views regarding the research process is, in the view of this writer, the most worrisome for nursing. If science remains the dominant paradigm used by nursing then knowledge being developed will be, of necessity, scientific

knowledge. As Kuhn (1977) states, "A paradigm can insulate the community from those socially important problems that are not reducible to the puzzle form because they cannot be stated in terms of the conceptual and instrumental tools the paradigm supplies" (p. 18-19). In other words, as nurses become more and more scientific they will lose what is essential to nursing, i.e., caring itself because science cannot conceptualize caring nor can caring be measured, only experienced.

This does not mean that nursing as an occupation cannot make use of scientific knowledge and research. There is, of course, a place for it. However, and this work seems to support this view, the problem arises when scientific knowledge is seen as the only legitimate knowledge. This seems to be what has and indeed is still happening in nursing and more specifically nursing education. In other words nursing may make use of scientific knowledge and research but it must also be cognizant of the problems associated with its use. Vickers, cited earlier in this work identifies clearly some of the drawbacks of scientific research. The analysis of the theses gave clear examples of problems such as decontextualization, searching for laws and the invisibility of the researcher. If nurses become aware of these limitations and begin to see scientific research and the knowledge which develops out of it as only one type of research and knowledge then nursing will develop a knowledge base encompassing many and varied types of

knowledge.

A. Recommendations

Having identified a number of problems and concerns the next step is to offer suggestions for changing and improving the situation. What follows are a number of recommendations that may assist nurses to create change and begin to move in a direction that will allow them to develop nursing's full potential.

Perhaps the most important area where change should take place is in nursing education. The first recommendation is that nursing education should incorporate into its curriculun courses that are aimed at critically evaluating nursing theories and other theories used in nursing education (Maslow, Selye and Parsons for example). This critical evaluation could include alternative thought such as that found in Marxism, feminism and critical theory. The goal of such a course would be to expose nursing students to alternative ways of viewing the world.

Another course whose addition would be of value to the curriculum would be a history of nursing. The course need not focus on a mere description of events, dates and people but should examine the social and political factors which have exerted an influence on the development of nursing and how the manner in which that influence is prevalent to this day. One benefit of such a course would be that students would learn the importance of individual's and group actions

in creating change. They would learn that history does not proceed on the basis of unchangeable laws but relies on the mitigating actions of those taking an active part in history.

Feminist theory should be incorporated into nursing education. This would help rekindle the lost emphasis on caring. It would also make nursing education a political education in the sense that it would illuminate the power relations that exist in society and within the health care system. Once these power relations are understood and recognized they become easier to change. This is not to say that nurses should abandon their traditional study of anatomy and physiology. Rather, the addition of such courses would enhance their studies without detracting from basic core subjects. And in fact these scientific courses could be modified to include a more critical perspective. For example, nursing students take a number of electives and these new courses could be listed as elective options. It would also be beneficial for students from other faculties to choose some of their electives from the nursing faculty. The results of this kind of interdisciplinary interchange could provide further positive benefit.

The effect of these changes in the nursing curriculum would be that nurses -- while able to function in the existing health care system -- would also be able to and would be, in fact, in the forefront of movements challenging the system. They might eventually become involved in the

union movement, the women's movement and a variety of other political issues.

At the graduate student level further development of these ideas should continue. To create a curriculum built on nursing knowledge, however, means that nursing research will have to change quite radically, particularly in light of the results of this research work. Certainly, it will not be an easy process but the possibility for change always exists. At the present time, feminist theory is far enough advanced to be used as a basis for research investigations. Additionally there are a number of theorists in nursing making important contributions to this area (Connors, 1984; Ashley, 1980). Part of the problem lies in the fact that the latter are not widely known, but this is an obstacle easily overcome through concerted efforts to elucidate those concerned.

Another recommendation focuses on the women's movement. To date feminists have paid little attention to nursing despite the fact that nursing is an important women dominated occupation and one that in many ways epitomizes the inequitable situation of women in society. Fortunately, this lack of attention seems to be dissipating. Allison Jaggar notes that "... nursing is an extremely important area for feminists to examine" (personal communication, 1986). Mary O'Brien, herself a nurse and midwife, has commented about the role these experiences have played in the development of her ideas. This emphasis on nursing needs

to spread and lead to increased dialogue between nurses and women active in the women's movement. The ultimate outcome of such cooperation may be the integration of both groups. Certainly, we would see a strengthening and cohesion within each.

The final recommendation of this thesis relates to future research. One suggestion of interest to future nurse researchers would be to interview the authors of the theses examined in this study in order to understand what they felt they were achieving in terms of creating nursing knowledge. How they felt about the process of conducting a scientific study and what they thought about the results themselves would also be examined. In addition it would be interesting to talk with nursing leaders and educators to explore their perceptions of the nature of nursing and nursing knowledge. Finally, it would be valuable to reexamine any of the questions raised in the seventeen theses analyzed using a qualitative research method in an effort to create nursing knowledge.

Before ending this work I would like, once again, to make a few personal comments. This thesis began with a description of how I became interested in this particular area of research. Now having completed, it might be useful to discuss the results from this perspective.

There were two thoughts which kept reoccurring as I proceeded with the data analysis. The first was my astonishment at just how much of the research was quantified

when other options were clearly suitable. Another aspect of this was my surprise at the results of the research done. The vast majority of conclusions stated that in fact no conclusions could be drawn. Comments relating to the small sample size, the lack of a good instrument or to the lack of significant statistical results were frequent. Obviously it is not possible to proove anything in a thesis but I believe that by using qualitative research methods information which allows one to understand, if only a little more, a particular phenomenon is always obtained.

Another thought which occurred to me was that the people working on these theses seemed to be quite frustrated about the researah they were doing. It seemed that they were experiencing much the same type of situation as I had experienced as a staff nurse. It is the frustration which develops out of denying one's own knowledge and using another knowledge base which is in fact incongruent with one's own.

There is however reason to be optimistic. In my interactions with nurses I find more and more support for my views and although these ideas are not frequently represented in nursing education I believe that the next three to five years will be important ones. The push for degree status for all practicing nurses may prove to be the additional part of the dialectical process which will lead to a new synthesis, a synthesis where nurses acknowledge the importance of their own knowledge. And in fact nursing may

be in the forefront of creating a new science based on emancipatory knowledge.

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